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10/591,245

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EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT

PAPER NUMBER

2419

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/591,245 | <b>Applicant(s)</b><br>SUZUKI ET AL. |  |
|                              | <b>Examiner</b><br>Andrew C. Lee     | <b>Art Unit</b><br>2419              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Claims 9 and 10 are newly added.
2. Claims 1 – 10 are pending.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxemchuk et al. (US 6782490 B2) in view of Gupta et al. (US 20020075805 A1).

**Regarding claim 1**, Maxemchuk et al. disclose a communication quality management method of multicasting data from a distribution server reception terminals via a router connected to a network (*element 102 “multicast source” interpreted as a distribution server, and elements 124A as a plurality of reception terminals; Abstract, Fig. 1, col. 4, lines 39 – 41*), the method comprising: receiving a multicast packet from the distribution server (*Fig. 1A, col. 4, lines 41 – 45, col. 7, lines 17 – 23*); acquiring the quality information from the multicast packet distributed via the router (*“through the multicast-enable router”; Fig. 2B, col. 10, lines 1 – 7*), except adding quality information to the multicast packet

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distributed from the distribution server; retransmitting the multicast packet with the added quality information via the router; and distributing, to the reception terminal, the multicast packet from which the quality information is removed.

Gupta et al. in the same field of endeavor teach adding quality information to the multicast packet distributed from the distribution server; retransmitting the multicast packet with the added quality information via the router; and distributing, to the reception terminal, the multicast packet from which the quality information is removed (*"A QoS indicator is inserted" interpreted as adding quality information to the multicast packet, and the QoS indicator is removed interpreted as which the quality information is removed; para. [0013], [0164]*).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Maxemchuk et al. to include the features of adding quality information to the multicast packet distributed from the distribution server; retransmitting the multicast packet with the added quality information via the router; and distributing, to the reception terminal, the multicast packet from which the quality information is removed as taught by Gupta et al. One of ordinary skill in the art would be motivated to do so for providing an access technology that can expand the bandwidth available to the end user to a level that is consistent with the capacity of the optical network core such that a true peer-to-peer broadband internet can be realized (*as suggested by Gupta et al., see para. [0008]*).

**Regarding claim 2**, Maxemchuk et al. disclose wherein adding quality information comprises: adding the quality information as a quality information header between a user datagram protocol (UDP) header and stream data of the multicast packet, which is distributed from the distribution server (“uses the Real-Time Transport Protocol (RTP) to multicast the packets,... RTP provides timestamps and sequence number” interpreted as adding quality information as a quality information header; Fig. 2A, element 285, col. 7, lines 49 – 59).

**Regarding claim 3**, Maxemchuk et al. disclose wherein adding quality information comprises: adding the quality information before the multicast packet, which is distributed from the distribution server, as an IP header, a UDP header, and a quality information header (“uses the Real-Time Transport Protocol (RTP) to multicast the packets,... RTP provides timestamps and sequence number” interpreted as adding quality information as a quality information header; Fig. 2A, element 285, col. 7, lines 6 – 14, lines 49 – 59).

**Regarding claim 4**, Maxemchuk et al. disclose wherein the quality information comprises packet loss information, distribution delay information, and fluctuation information in the quality information (*“the fraction of data packets from the source lost .....statistical variance of packet interarrival time ,,,.....round trip propagation delay”*; col. 3, lines 16 – 27, Fig. 9, Fig. 9A, Fig. 9B, Fig. 9C, Fig. 9D.)

**Regarding claim 5**, Maxemchuk et al. disclose saving, for each reception terminal, the quality information acquired from the multicast packet in a database (*col. 10, lines 26 – 56*).

***Allowable Subject Matter***

5. Claims 6 – 8, 10 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art made of record, in single or in combination fails to disclose the limitations of:

“a server proxy arranged between the distribution server and the router to add quality information to a multicast packet received from the distribution server and retransmit the multicast packet with the added quality information via the router; a reception terminal proxy arranged between the router and the reception terminal and including a quality information acquisition unit which acquires, from the multicast packet, the quality information added by said server proxy and a quality information calculation/transmission unit, said reception terminal proxy distributing, to the reception terminal, the multicast packet from which the quality information is removed; and an accumulation server which receives and accumulates the quality information from said reception terminal proxy” as disclose in claim 6.

“a server proxy arranged between the distribution server and the router to add quality information as a quality information header to a multicast packet received from the distribution server and retransmit the multicast packet with the added quality information via the router; reception terminal proxies arranged between the router and corresponding reception terminals, which reception terminal proxies distribute the multicast packet to the reception terminals, the

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reception terminal proxies including: a quality information acquisition unit, which removes the quality information header from the multicast packet, acquires the quality information from the quality information header, and distributes the multicast packet, from which the quality information header is removed, to the corresponding reception terminal, and a quality information calculation/transmission unit, which processes the acquired quality information and calculates results based on the processed quality information; and an accumulation server which receives and accumulates the quality information and the calculation results from each reception terminal proxy for each of the reception terminals” as disclosed in claim 10.

7. Additionally, all of the further limitations in claims 7 and 8 are allowable since the claims are dependent upon independent claim.

8. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1 – 10 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 1, applicant argues Maxemchuk does not teach or suggest at least "receiving a multicast packet from the distribution server; ... retransmitting the multicast packet with the added quality information via the router; acquiring the quality information from the multicast packet ...; and distributing, to the reception terminal, the multicast packet from which the quality information is removed."

In response to the applicant's remark, Examiner respectfully disagrees. Examiner contends the combined system of reference Maxemchuk et al. and newly found reference Gupta et al. teaches the limitations of "receiving a multicast packet from the distribution server; ... retransmitting the multicast packet with the added quality information via the router; acquiring the quality information from the multicast packet ...; and distributing, to the reception terminal, the multicast packet from which the quality information is removed."

Examiner interpreted "receiving a multicast packet from the distribution server; ... retransmitting the multicast packet with the added quality information via the router; acquiring the quality information from the multicast packet ...; and distributing, to the reception terminal, the multicast packet from which the quality information is removed" as a QoS indicator is inserted" interpreted as adding quality information to the multicast packet, and the QoS indicator is removed interpreted as which the quality information is removed; see Gupta et al. para. [0013], [0164]

### ***Conclusion***



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11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/  
Examiner, Art Unit 2419  
<5/17/2009::3Qy09>

/Ayaz R. Sheikh/  
Supervisory Patent Examiner, Art Unit 2419